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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/717,248

11/19/2003

Samir F. Saba

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7748

7590

06/23/2006

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EXAMINER

LAYNO, CARL HERNANDZ

ART UNIT

PAPER NUMBER

3766

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/717,248	<b>Applicant(s)</b> SABA, SAMIR F.	
	<b>Examiner</b> Carl H. Layno	<b>Art Unit</b> 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-15 is/are allowed.
- 6) ☒ Claim(s) 1-10, 16-21 and 26 is/are rejected.
- 7) ☒ Claim(s) 22-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Drawings***

1. Applicant's formal drawings were received by the Office on November 19, 2003 and have been approved of by the Examiner.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Specifically, the applicant should refrain from using the words "The invention" (line 1 of the Abstract).

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 16-18 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claims 16 and 17, the claims are incomplete in that both claims recite a step “f)” without first reciting a step “e)”. Base claims 6 and 10 only recite method steps a) thru d). This appears to be a typographical error. To overcome this rejection, the Examiner recommends changing the claim dependency of both claims to depend from claim 11.

In regards to claim 18, there is no antecedent basis for the term “said computer” (line 1), or for any computer or similar device in base claim 10.

In regards to claim 26, there is no antecedent basis for the term “said computer” (line 1), or for any computer or similar device in base claim 19.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1-10 and 19 -21 are rejected under 35 U.S.C. 102(e) as being anticipated by Küpper (US 6,813,518).

The Küpper (US 6,813,518) patent describes an implantable system (Fig.5) for terminating atrial fibrillation comprising both pacemaker elements **63,65,67** and defibrillator elements **69,33,35,27**, and connected to a plurality of atrial and ventricular pacing leads **16,18** (Fig.2). The atrial and ventricular lead electrodes are configured to be simultaneously paced (Abstract, lines 2-5).

In regard to claim 2, applicant's attention is directed to Fig.4, which shows the implantable pacemaker cardioverter/defibrillator (PCD) device **10** connected to defibrillation leads **1, 7, and 41** located in both the patient's atrium and ventricle.

In regard to claim 3, the pacing leads of Küpper also double as sensing leads. See Fig.5, which shows electrodes **2, 3, 9, and 13** connected to sensing amplifiers **43 and 37**.

In regard to claim 4, the PCD **10** includes memory in the form of RAM **59** (Fig.5).

In regard to claims 5, 6, 8, 9, and 19-21, Küpper is capable of sensing cardiac signals indicative of "premature atrial contractions" (PACs) or "premature ventricular contractions" (PVCs) applicant's (col.13, lines 15-22). The Examiner considers these signals to be "earliest" arriving of the cardiac signals from the atria and ventricle, respectively.

In regard to claim 7, the Küpper device detects the presence of atrial fibrillation (AF) prior to pacing treatment therapy (Abstract, lines 2-6 and Figs.6-7).

In regard to claim 10, the algorithm (Fig.6) of Küpper applies AF combipolar pacing therapy until AF is no longer detected (block **635**) (i.e. a state of normal sinus rhythm).

*Allowable Subject Matter*

7. Claims 16 and 17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. Claims 22-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 11-15 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter:

The Examiner could not find a method involving the steps of “providing” a combination of a computer, an electrocardiogram array, and a plurality of “quadripole catheters” configured for simultaneous atrial and ventricular pacing” (claim 11), and “detecting” an “earliest arriving electrical signal” following the simultaneous pacing of atria and ventricles in the manner claimed by the applicant. Consequently, the Examiner deems independent claim 11 and depending claims 12-15 to be allowable.

*Conclusion*

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Struble (US 6,466,824) and Begemann et al (US 6,950,701) patents are cited for their pertinent disclosure of implantable devices which simultaneously stimulate different chambers of the heart. However, unlike applicant's device, the chambers paced are either both ventricles or both atria, not one atrium and one ventricle.

The Narayan et al (US 2004/0059237 A1) U.S Patent Application Publication describes a method and apparatus for classifying heart arrhythmias, which appears to read on applicant's claimed method disclosed in claim 11, but fails to specify the use of quadripolar catheters.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl H. Layno whose telephone number is (571) 272-4949. The examiner can normally be reached on 9/4/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Carl H. Layno

CARL LAYNO  
PRIMARY EXAMINER

CHL  
6/19/2006